

REMARKS

1. Claims 1-29 were pending in the application wherein claims 1-17 stood withdrawn and claims 18-29 stood rejected. This communication amends claims 18-20; cancels claims 1-17; and adds claims 30-33.

Reconsideration of this application is respectfully requested.

2. Applicants' reserve the right to refile canceled withdrawn claims 1-17 in a divisional application.

3. Claim 18 stands rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,812,120 to Young et al. (Young).

In response, claim 18 has been amended to recite "defining a trench in the mask film, *the trench terminating above the substrate.*" Support for this subject matter is shown, for example, in FIG. 2E.

Young does not expressly or inherently disclose this step of the method, as currently amended. Instead, Young discloses in column 3, lines 61-64:

Next, a standard photolithography and etching process are carried out to etch portions of the mask layer 204, the pad layer 202 and the substrate 200 to form trench 206 in the active region 100 of the substrate 200.

Accordingly, currently amended claim 18 is allowable over Young.

In view of the foregoing, withdrawal of this rejection is respectfully urged.

4. Claims 19-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Young as applied to claim 18, and further in view of U.S. Patent Publication 2005/1045920 to Chang et al.

(Chang), U.S. Patent Publication 2003/0209753 to Kamiya et al. (Kamiya), and U.S. Patent 6,569,736 to Hsu et al. (Hsu).

Young does not describe all the steps of currently amended claim 18, as discussed above. Specifically Young does not describe “defining a trench in the mask film, the trench terminating above the substrate.”

Chang, Kamiya and Hsu fail to cure the deficiencies of Young. Specifically, Chang and Kamiya appear to describe forming trenches that extend into and terminate within the substrate.

The Hsu patent appears to describe forming a trench in a mask film 38 that has been formed over a film of electroconductive material 36 that covers a substrate, and then filling the trench with an insulating material 46. Although the trench does not extend into the substrate, the trench is formed after the electroconductive material has been deposited over the substrate. In contrast, claim 18 requires “at least partially filling the trench with a first film of electroconductive material.” No electroconductive material is used to fill the trench in Hsu, moreover, there is no suggestion in the cited prior art of record to do so. Accordingly, Young further in view of Chang, Kamiya and Hsu, fail to arrive at the invention of claim 18.

Claims 19-29, which depend from claim 18 and recite additional features of the invention, are allowable over Young further in view of Chang, Kamiya and Hsu for at least the same reasons, as stated for claim 18.

In view of the foregoing, withdrawal of this rejection is respectfully urged.

5. New claims 30-33 depend from claim 18 and recite additional features of the invention. Support for the subject matter recited in these claims can be found, for example, on page 4, paragraph [0015] through page 6, paragraph [0019] of the specification.

Since claims 30-33 depend from claim 18, they are believed to be allowable for at least the same reasons as stated for claim 18.

6. Favorable reconsideration of this application is respectfully requested as it is believed that all outstanding issues have been addressed herein and, further, that claims 18-33 are in condition for allowance. Should there be any questions or matters whose resolution may be advanced by a telephone call, the examiner is cordially invited to contact applicants' undersigned attorney at his number listed below.

7. The Commissioner is hereby authorized to charge payment of any filing fees required under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17, which are associated with this communication, or credit any overpayment to Deposit Account No. 50-2061.

Respectfully submitted,



PAUL A. SCHWARZ
PTO Reg. No. 37,577

Duane Morris LLP
P.O. Box 5203
Princeton, NJ 08543-5203
(609) 631-2446 (phone)
(609) 631-2401 (fax)